



## ATTACHMENT 1

**This listing of claims will replace all prior versions and listings of claims in this Application.**

1. (Cancelled)
2. (Cancelled)
3. (Currently amended) A method in accordance with the method of claim 4 wherein said step of depositing marks of said at least a second color and a third color to accommodate said marks of said first color further comprises the step of depositing marks of said at least a second color and a third color on the medium at locations where marks of said first color are absent.
4. (Currently Amended) A method ~~in accordance with the method of claim 1~~ wherein said step of printing information on a medium, comprising the steps of:  
accepting first data representing a first information;  
accepting second data representing a second information, said second information being unrelated to and independent of said first information;  
depositing marks of a first color in accordance with said first data; and  
depositing marks of at least a second color and further comprises the step of depositing marks of a third color in coordination with said second color marks to produce a superpixel in accordance with said second data and accommodating said marks of a first color, such that said first information and said second information are printed on the medium and are detectable from the printed medium as separate first information and second information.
5. (Currently Amended) A method in accordance with the method of claim 4 wherein said step of depositing marks of at least a second color and a third color further comprises the step of depositing marks of a second color and a third color perceptible to a

human and said step of depositing marks of a first color further comprises the step of depositing marks of a first color imperceptible to a human.

6. (Currently Amended) A method in accordance with the method of claim 4 wherein said step of depositing marks of a first color further comprises the step of ejecting drops of a first color ink and wherein said step of depositing marks of at least a second color and a third color further comprises the step of ejecting drops of a second color and a third color ink, respectively.

7. (Cancelled)

8. (Cancelled)

9. (Currently Amended) A method ~~in accordance with the method of claim 8~~ wherein ~~said step of printing information on a medium, comprising the steps of:~~

accepting data representing a first information;

accepting data representing a second information, said second information being unrelated to and independent of said first information; and

depositing marks of at least two colors further comprises the step of depositing said marks of at least two colors in coordination to produce a superpixel in accordance with said first information data and said second information data such that said first information and said second information are separately detectable from the medium, said first information data determining where a mark is to be deposited on the medium and said second information data determining a color of said marks of at least two colors in coordination to be deposited .

10. (Currently Amended) A method in accordance with the method of claim 9 wherein said step of depositing marks of at least two colors further comprises the steps of ejecting drops of a first color ink and ejecting drops of a second color ink.

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) A hardcopy output ~~in accordance with claim 12~~ wherein said having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

marks of a first color deposited on said surface and arranged in a pattern to convey a first information; and

marks of at least second and third colors further comprises deposited in a superpixel coordination of said marks of at least second and third colors on said surface in locations where said marks of said first color are absent and conveying a second information by a sequence of said second and third color marks, said second information being unrelated to and independent of said first information .

14. (Currently Amended) A hardcopy output in accordance with claim ~~13~~ 12 wherein said marks of a first color further comprises dots of a first color ink and wherein said marks of at least a second color and a third color further comprises dots of a second color and a third color ink, respectively.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled).

18. (Currently Amended) A hardcopy output having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

marks of at least first, second and third colors, said marks of second and third colors arranged in a a superpixel coordination of said marks of second and third colors ,

deposited on said surface, arranged in a pattern to convey a first information, and said superpixel coordination disposed within at least a portion of said pattern to convey a second information.

19. (Previously Presented) A hardcopy output in accordance with claim 18 wherein said marks of a first color further comprises dots of a first color ink and said superpixel coordination of marks of a second and third color further comprises superpixels of dots of a second and third color inks.

20. (Previously Presented) A hardcopy output having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

marks of a first color, comprising superpixels of a first color, and marks of a second color, comprising superpixels of a second color, deposited on said surface, arranged in a pattern to convey a first information, and arranged in a sequence of said at least first and second colors within at least a portion of said pattern to convey a second information.

21. (Cancelled)

22. (Cancelled)

23. (Previously Presented) A method of printing information on a medium, comprising the steps of:

accepting data representing a first information;

accepting data representing a second information, said second information adding informational value over said first information;

depositing marks of a first color in accordance with said first data; and

depositing marks of at least a second color in coordination with marks of a third color to produce a superpixel in accordance with said second data, such that said first

information and said second information are printed on the medium and are detectable from the printed medium as separate first information and second information.

24. (Previously Presented) A method of printing information in accordance with the method of claim 23 wherein said steps of depositing marks of a first color and depositing marks of at least a second color and a third color further comprises the steps of:

depositing marks of said first color to accommodate said marks of said second color; and

depositing marks of said second color and said third color to accommodate said marks of said first color.

25. (Previously Presented) A method in accordance with the method of claim 24 wherein said step of depositing marks of said at least a second color and a third color to accommodate said marks of said first color further comprises the step of depositing marks of said at least a second color and a third color on the medium at locations where marks of said first color are absent.

26. (Previously Presented) A method in accordance with the method of claim 23 wherein said step of depositing marks of at least a second color and a third color further comprises the step of depositing marks of a second color and a third color perceptible to a human and said step of depositing marks of a first color further comprises the step of depositing marks of a first color imperceptible to a human.

27. (Previously Presented) A method in accordance with the method of claim 23 wherein said step of depositing marks of a first color further comprises the step of ejecting drops of a first color ink and wherein said step of depositing marks of at least a second color and a third color further comprises the step of ejecting drops of a second color ink and a third color ink.

28. (Previously Presented) A method of printing information on a medium, comprising the steps of:

accepting data representing a first information;

accepting data representing a second information, said second information adding informational value independent of said first information; and

depositing marks of at least two colors in coordination to produce a superpixel in accordance with said first information data and said second information data such that said first information and said second information are separately detectable from the medium, said first information data determining where a mark is to be deposited on the medium and said second information data determining a color of said at least two colors of marks to be deposited.

29. (Previously Presented) A method in accordance with the method of claim 28 wherein said step of depositing marks of at least two colors further comprises the steps of ejecting drops of a first color ink and ejecting drops of a second color ink.

30. (Previously Presented) A hardcopy output having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

marks of a first color deposited on said surface and arranged in a pattern to convey a first information; and

marks of a superpixel coordination of at least second and third colors deposited on said surface in locations where said marks of said first color are absent and conveying a second information by a sequence of said second and third color marks.

31. (Previously Presented) A hardcopy output in accordance with claim 30 wherein said marks of a first color further comprises dots of a first color ink and wherein said marks of at least second and third colors further comprise dots of a second and a third color ink, respectively.

32. (Previously Presented) A hardcopy output having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

marks of superpixels of a first color deposited on said surface and arranged in a pattern to convey a first information; and

marks of superpixels of at least second and third colors deposited on said surface in locations where said marks of said first color are absent and conveying a second information by a sequence of said second and third color marks.

33. (Previously Presented) A hardcopy output in accordance with claim 32 wherein said marks of superpixels of a first color further comprises dots of a first color ink and wherein said marks of superpixels of second and third colors further comprise dots of a second and a third color ink, respectively.

34. (Previously Presented) A hardcopy output in accordance with claim 20 wherein said marks of superpixels of a first color further comprises superpixels of dots of a first color ink and wherein said marks of a second color further comprises superpixels of dots of a second color ink.

35. (New) A hardcopy output having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

marks of a first color deposited on said surface and arranged in a pattern of superpixels to convey a first information; and

marks of at least second and third colors deposited on said surface in a pattern of superpixels of said at least second and third colors in locations where said marks of said first color are absent and conveying a second information by a sequence of said second and third color marks, said second information being unrelated to and independent of said first information.

36. (New) A hardcopy output in accordance with claim 35 wherein said marks of a first color further comprises dots of a first color ink arranged in a pattern of superpixels and wherein said marks of at least a second color and a third color further comprises dots of a second color ink arranged in a pattern of superpixels.

37. (New) A hardcopy output in accordance with claim 35 wherein said second color is perceptible to a human and said third color is imperceptible to a human.

38. (New) A hardcopy output having information thereon printed by a color printing apparatus, comprising:

a medium having a surface;

marks of a first color deposited on said surface and arranged in a pattern to convey a first information; and

marks of at least a second color perceptible to a human and a third color imperceptible to a human deposited on said surface in locations where said marks of said first color are absent and conveying a second information by a sequence of said second and third color marks, said second information being unrelated to and independent of said first information.

39. (New) A hardcopy output in accordance with claim 38 wherein said marks of a first color further comprises dots of a first color ink and wherein said marks of a second color further comprises dots of a second color ink.

40. (New) A hardcopy output in accordance with claim 38 wherein said marks of a first color further comprises superpixels of a first color and wherein said marks of at least a second color and a third color further comprises superpixels of a second color and a third color.